

C2, TC 5-400

Change 2

Headquarters
Department of the Army
Washington, DC,

Unit Leaders' Handbook for Environmental Stewardship

1. Change TC 5-400, 29 September 1994, as follows:

Remove Old Pages

B-3 through B-6

C-1 through C-2

C-5 through C-6

G-1

References-1 through

References-3

Insert New Pages

B-3 through B-6

C-1 through C-2

C-5 through C-6

G-1

References-1 through

References-3

2. A bar (**I**) marks new or changed material.
3. File this transmittal sheet in front of the publication.

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By Order of the Secretary of the Army:

DENNIS J. REIMER
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with DA Form 12-11E requirements for TC 5-400, *Unit Leaders'*
Handbook for Environmental Stewardship (Qty rqr block no.
5336).

e. Prescribed Load List (PLL) Clerk. Requisitions mercury and lithium batteries with recoverability code "A" only when a like item and quantity have been turned in.

f. Nuclear, Biological, and Chemical (NBC) NCO.

(1) Inspects all possible decontaminant solution 2 (DS2) and super tropical bleach (STB) accumulation sites (conexes, wall lockers, POL accumulation area, and so forth) to ensure these products have been properly turned over to DOL/supply for consolidated storage.

(2) Does the following in the event the unit is temporarily in possession of decontamination agents DS2 or STB:

(a) Ensures that DS2 and STB are stored in separate locations.

(b) Inspects containers monthly for leakage and records results. Arranges for leakers to be overpacked and turned in to the DRMO.

g. Individual Mechanics.

(1) Place hazardous wastes in properly designated containers.

(2) Never place HW in a dumpster; this is illegal disposal.

(3) Promptly report leakers/spills to the motor sergeant and/or maintenance officer; report spills directly to the fire department and installation environmental office, if necessary, to ensure prompt response.

(4) Wear proper protective clothing when handling HM or HW.

(5) Keep HM and HW accumulation containers closed except to add or remove product.

4. **GENERAL.** (Includes a short summary of reasons for HM and HW requirements; safety precautions and equipment; and hazards of POL products, batteries, paint products, and decontamination agents.)

5. **PROCEDURES FOR ACCUMULATION SITE.** Accumulation sites must be provided for used petroleum products and HW. Sites will be placed above the ground on a nonpermeable, bermed hard stand; labeled; and located 50 feet or more from any building. Leaking, corroded, or otherwise deteriorating containers must be overpacked in Department of Transportation (DOT) approved drums. Coordinate with the installation

environmental office for assistance in determining the appropriate overpack containers, labeling/marketing requirements, arranging for pick up of used oil, and other hazardous waste/material collection issues.

a. Used-oil markings must be reserved for products that are considered for recycling and/or reuse, such as motor oil, grease, solvents, brake fluid, and antifreeze. Products must be stored in separate containers.

(1) Containers (drums, cans, or tanks) must remain closed except when in use. This safeguards against spills and prevents water from entering the containers. If the 2 1/2- or 2 3/4 -inch threaded cap on a 55-gallon drum is missing, get a replacement from the troop support office.

(2) Collect used oil in an appropriate above-ground container marked USED OIL and located at _____. If a 55-gallon drum is needed, use National Stock Number (NSN) 8110-00-823-8121.

(3) Leave the following headspace to prevent overflow due to expansion:

- 55-gallon drum: 3 to 4 inches.
- 5-gallon can: 1 1/2 to 2 inches.
- 1-gallon can: 1 inch.

(4) Label the container(s) USED OIL ONLY. Ensure that personnel are trained to place only used oil in the tanks. (Due to past practices of disposing all hazardous liquids, rags, and other debris into used-oil tanks, oil recyclers do not want what is now waste oil; therefore, we must pay a very high price for its disposal.

(5) Most used-oil tanks are pumped on a regular schedule. If the tank fills up before the scheduled pickup date or the tank is not on the schedule, notify Chief, DRMO, extension _____. Coordinate these activities with the installation environmental office.

b. Hazardous-waste markings are reserved for products that must be disposed of and handled as hazardous waste, such as mixtures of used motor oil, grease, solvents, or brake fluid and asbestos brake shoes (which must be stored in separate containers).

(1) If HM or HW is spilled, use vermiculite (NSN 7930-00-269-1272) to soak up the puddles and Safestep (NSN 7930-01-145-5797) or sawdust (NSN 7930-00-633-9849) to clean up hard stands. Place all the contaminated material in properly marked, removable head drum(s) (NSN 8110-00-082-2626 or 8110-00-292-8121) and turn in to the DRMO.

(2) Store decontamination agents DS2 and STB at the installation supply division (ISD) consolidated accumulation site.

c. Overpack chemical products and POL in leaking, corroded, or otherwise deteriorating containers in Department of Transportation (DOT) approved drums and dispose of them as HW through the DRMO. For assistance in determining the appropriate overpack containers, contact the environmental office.

(1) To be accepted for turn-in, the waste material must be in a safe, nonleaking, durable container. Most leakers can be overpacked in steel removable head drums, which are available through the supply system. Leaking containers of liquids must be packed in absorbent material (NSN 7930-00-269-1272), which is available at the self-service supply center. A leaking 55-gallon drum may be overpacked in an 85-gallon drum. The absorbent material must be capable of soaking up all the liquid contents of the drum; therefore, there must be 6 inches of absorbent on the bottom and top of the interior container, with at least 2 inches around the sides (adjust for different size drums and overpacks). Leaking containers of nonliquid hazardous waste may not need to be packed with absorbent material. Check with the environmental office or the DRMO. Many liquids, such as battery acid, cannot be packed in steel containers; call the environmental office or the DRMO when in doubt.

(2) If drums are not available for overpacking an emergency spill, contact the environmental office for a loaner. A replacement drum must be requisitioned and provided to the environmental office. Removable head 55-gallon drums (NSN 8110-00-082-2626) are also stocked by installation supply. Get them by walking a requisition through your support office to the ISD. Used drums are available at the DRMO.

(3) Request assistance from the environmental office on compatibility of waste, packing, and labeling of containers.

d. Inspect HW weekly. Results of the inspection will be documented on a log and made accessible to state and federal inspectors. Inspection logs should contain the following information: description of waste, location, quantity, date accumulation started, end of 90-day period, date removed to the DRMO or by contractor, remarks (condition of storage area and containers), inspector's printed name, signature, and date of inspection. This action should be coordinated with the installation environmental office.

6. **DISPOSAL OF EMPTY CONTAINERS AND HAZARDOUS ITEMS.** (Includes information on turn-in of mufflers and exhaust pipes, brake shoes and clutch plates, fuel tanks, aerosol cans, PCB capacitors and transformers, hydraulic rams and gas cylinders, shock absorbers, oil saturated wood and pallets, paint and paint containers, solvents and thinners, oils and greases, antifreeze, oily rags, sweeping compound, oil and fuel filters, washracks soil/sand residue, and products with expiration dates.)

7. **PROCEDURES FOR TURN-IN OF HM OR HW.** (Includes information on filling out and processing the turn-in document.)

8. **TRANSPORT OF HM AND HW.** (Coordinate with DOL/FMO for approval.)

9. **POINTS OF CONTACT FOR ASSISTANCE.** (Listed by office, name, telephone number, and building.)

APPENDICES (not provided).

- Packaging materials authorized, by type of container, Department of Transportation (DOT) specification, capacity, and NSN.
- Instructions for preparing turn-in document, with filled out example.
- Example HW label, where available (self-service supply center or troop support office and installation environmental office).
- Labels and placards guide, including publications supply system standard form (SF) numbers, and installation stock numbers for use at the self-service supply center. For example: "To maintain a subdued visibility while in the field, turn over the placards and paint them forest green on the back side with the title stenciled in flat black."
- Emergency procedures for HM/HW spills.

APPENDIX C**UNIT ENVIRONMENTAL SELF-ASSESSMENT**

This appendix provides a generic questionnaire for environmental self-assessment and a basis from which to initially assess a unit's environmental compliance. This form should be supplemented locally using state and local environmental regulations that are applicable to your installation. This form, with local supplements, is intended to serve as the primary tool in conducting unit environmental assessment. The form is divided into eight assessment areas (management, accumulation sites, HM/HW, solid-waste management, spill prevention, recycle program, washracks, and land management). Items answered "no" requires corrective action.

I. Management

1. ____ Is an environmental-compliance officer or hazardous-waste coordinator appointed, in writing?
2. ____ Is an environmental-compliance officer or hazardous-waste coordinator properly trained within 30 days of assigned duty?
3. ____ Does the environmental-compliance officer or hazardous waste-coordinator maintain a file of applicable references, appointment orders, and inspection records for the last 24 months?
4. ____ Is an environmental awareness training program available for unit personnel?
5. ____ Are most unit personnel trained in environmental awareness?
6. ____ Does the unit SOP cover unit spill prevention and response?
7. ____ Does the unit SOP cover HAZCOM program?
8. ____ Does the unit have a pollution prevention/HAZMIN program?
9. ____ Does the unit have/support a recycling program?
10. ____ Is good housekeeping evident in POL, HM, and HW storage areas?

11. ____ Does the unit implement safety to minimize performing detailed maintenance in the field?

II. Accumulation Sites

1. ____ Are there adequate dikes or catchment areas around accumulation sites?
2. ____ Are hazardous waste, used oil, and other possible pollutants always stored in authorized containers?
3. ____ Are used-oil tanks pumped out when full?

III. Hazardous Material/Hazardous Wastes

1. ____ Is only the amount of HM needed on hand (no stockpiling of HM)?
2. ____ Is the unit HM/HW inventory (quantity and location) up to date?
3. ____ Is HW collected and stored in authorized containers?
4. ____ Is HM/HW disposed of according to directives?
5. ____ Are containers labeled according to directives?
6. ____ Are containers in good condition and closed when not used?
7. ____ Are there accumulation start dates on each HW container?
8. ____ Are waste-oil accumulation tanks used for collecting HW and other pollutants (antifreeze, GAA, oil, and so forth)?
9. ____ Are danger and warning signs conspicuously placed?
10. ____ Is spill-prevention and -control equipment adequate?
11. ____ Are personnel trained in the proper handling, collection, storage, or transportation of HM/HW?

4. ____ Are signs that indicate whether solvents or soap may be used present?
5. ____ Are metal gratings or baffles present and in good condition at washrack oil interceptor, catch basins, or floor drains?
6. ____ Is washrack area free of oil and/or fuel spills?
7. ____ Are treatment devices (oil and grease interceptors, catch basins, collection ponds, drains, tanks, and so forth) properly maintained and serviced?
8. ____ Is washrack area free of oil rags and trash?
9. ____ Are faucets and/or backflow preventors in good operating condition?
10. ____ Are only authorized soap, solvent, or chemicals used with steam-cleaning equipment?
11. ____ Is oil/water separator in good working condition?
12. ____ Is vehicle/equipment/aircraft waste-water discharge tied into treatment system?
13. ____ Does your SOP indicate how to request maintenance for and pumping of the oil/water separator?

VIII. Land Management

1. ____ Are vehicles parked or driven only in authorized areas?
2. ____ Are surface areas and curbs free of vehicular damage?
3. ____ Is the area free of litter?
4. ____ Is gravel used only in authorized areas and in an authorized manner?
5. ____ Are archeological or historical sites safeguarded?

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6. ____ Are live or dead trees or limbs felled, removed, or used only with appropriate approval (range control/forester)?
7. ____ Are personnel ensuring that garbage, refuse, and rubbish are never burned or buried on the range area? (The generating unit is to deliver all solid waste items to the sanitary landfill for disposal or to other approved sites.)
8. ____ Are storm-water ditches in vicinity of motor pools free of POL or other HM/HW?
9. ____ Are detention ponds, waste-and-sump collection points, and vehicle-inspection points functional and being serviced properly?
10. ____ Are paint spray and battery and radiation repair operations being operated properly and coordinated with the EMO, safety, and preventive medicine officers?
11. ____ Are collection points established with proper containers and servicing for all maintenance-generated wastes?
12. ____ Does the unit observe fording sites and fording operational procedures?
13. ____ Does the unit dig fighting positions?
14. ____ Does the unit cover all of the fighting positions after an exercise?
15. ____ Does the unit have designated refueling points (garrison and field)?
16. ____ Do refueling operations SOPs address practices to minimize spills?
17. ____ Is there material on hand to clean up a spill (spill kits)?
18. ____ Do fuel handlers know how to report a spill?
19. ____ Do units maintain and use the tanks' turning pads?
20. ____ Does the unit properly conduct smoke operations according to appropriate Army and installation regulations?

APPENDIX G

ENVIRONMENTAL INFORMATION HOTLINES

Environmental hotline numbers provided for your information.

Army Environmental Information Response Line

Operated by USAEC. Provides information and assistance on Army environmental issues.

CONUS	1-800-872-3845
OCONUS	1-410-671-1699
DSN	584-1699

Environmental Training Support Center (Corps of Engineers (COE) - Huntsville Division) 1-205-895-7408/7413

A central referral point for the Army for environmental training support information.

Soldier Training and Doctrinal Publications 1-573-563-4122

Provides information on environmental awareness training furnished to all service schools and units by the USAES.

Additional hotline numbers.

REFERENCES

SOURCES USED

These are the sources quoted or paraphrased in this publication.

AR 385-10, *The Army Safety Program*, 23 May 1988.

AR 420-40, *Historic Preservation*, 15 April 1984.

AR 420-47, *Solid and Hazardous Waste Management*, 1 December 1984.

Executive Order 11989, *Off-Road Vehicles on Public Lands*, 24 May 1977.

Executive Order 11990, *Protection of Wetlands*, 24 May 1977.

Executive Order 12088, *Federal Compliance with Pollution Control Standards*, 13 October 1978.

Executive Order 12114, *Environmental Effects Abroad of Major Federal Actions*, 4 January 1979.

Executive Order 12580, *Superfund Implementation*, 23 January 1987.

Executive Order 12856, *Federal Compliance with Right-to-Know Laws and Pollution Prevention Requirements*, 3 August 1993.

Executive Order 12873, *Federal Acquisition, Recycling, and Waste Prevention*, 20 October 1993.

Field Manual 25-101, *Battle Focused Training*, 30 September 1990.

US Army Corps of Engineers, Construction Engineering Research Laboratories, *Environmental Awareness at Ft. Leonard Wood; Leaders' Handbook*, Undated.

US Army Corps of Engineers, Construction Engineering Research Laboratories, *Environmental Compliance Assessment for Army Reserves (ECAAR)*, November 1991.

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US Army Engineer School, Handbook #052-RCTI, *Risk Management and Environmental Policies/Procedures Handbook*, March 1992.

US Army Sergeants Major Academy, *Leader's Handbook, Environmental Stewardship, Company/Battery/Troop*, 7 May 1993 (working draft).

US Army Environmental Center, *Commander's Guide to Environmental Management*, October 1995.

US Army Environmental Center, *U.S. Army Environmental Training Master Plan (AETMP)*, 17 December 1992.

Army Environmental Policy Institute, *U.S. Army Environmental Strategy into the 21st Century*, 1992.

DOCUMENTS NEEDED

These documents must be available to the intended users of this publication.

*AR 200-1, *Environmental Protection and Enhancement*, 21 February 1997.

*AR 200-2, *Environmental Effects of Army Actions*, 23 December 1988.

*AR 200-3, *Natural Resources-Land, Forest, Wildlife Management*, 28 February 1995.

DA Form 2028, *Recommended Changes to Publications and Blank Forms*, February 1974.

*This source was also used to develop this publication.

READINGS RECOMMENDED

These sources contain relevant supplemental information.

DOD Directive 4120.14, *Environmental Pollution, Prevention, Control, and Abatement*.

DOD Directive 4700.4, *Natural Resource Management Programs*.

DOD Directive 6050.16, *DOD Policy for Establishing and Implementing Standards at Overseas Installations*.

DOD Regulation 4145.19-R-1, *Hazardous Materials Storage and Handling Criteria*.

Title 29, CFR, part 1910, *Occupational Safety and Health Administration (OSHA)*.

Title 40, CFR, part 260-280, *Resource Conservation and Recovery Act (RCRA)*.

Title 40, CFR, part 171-178, *Department of Transportation Hazardous Material Regulations*.

TM 5-803-2, *Environmental Protection: Planning in the Noise Environment*, 15 June 1978.

TM 38-410, *Storage and Handling of Hazardous Material*, 29 May 1992.

Army Environmental Policy Institute, *Environmental Trends - Policy Implications for the U.S. Army*, March 1992.

Schumaker, Aileen, *A Guide to Hazardous Materials Management: Physical Characteristics, Federal Regulations, and Response Alternatives*. New York: Quorum Books, 1988.

Shulman, Seth, *The Threat at Home: Confronting the Toxic Legacy of the U.S. Military*. Boston: Beacon Press, 1992.

US Army Environmental Training Support Center, *Defense Services Directory of Environmental Courses*, July 1996.